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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,815	10/19/2004	Toni Kopra	KOLS.152US	8824

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EXAMINER

LU, ZHIYU

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/511,815	Applicant(s) KOPRA ET AL.	
	Examiner Zhiyu Lu	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4, 6, 8-13, 14, 16, 18-24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakatsuyama (US Patent#6658231).

Regarding claim 1, Nakatsuyama anticipates a method of providing one or more content items to at least one user terminal of a radio system, the content item being related to a broadcast media stream, the method comprising:

attaching the content item to a broadcasting time line of the broadcast media stream by a broadcasting system (column 7 lines 57-65);

broadcasting the broadcast media stream by a broadcasting system (column 7 lines 57-65);

synchronizing an internal time of the user terminal with the internal time of the broadcasting system (column 7 lines 45-53);

sending the content item attached to the broadcasting time line of the broadcast media stream from the radio system to the user terminal (column 7 lines 57-65); and

presenting the received content item in the user terminal at a given moment in time that is determined based on the attachment of the content item to the broadcasting time line and on the

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synchronization of the internal time of the user terminal with the internal time of the broadcasting system (column 7 lines 57-65, column 8 lines 35-63).

Regarding claim 11, Nakatsuyama anticipates a media system including a broadcasting system configured to broadcast a broadcast media stream, the media system comprising:

a radio system (230 of Fig. 5) communicating with the broadcasting system (17, 28-29, and 208A-B of Fig. 5) and one or more user terminals (220 of Fig. 5).

the broadcasting system is further configured to attach one or more content items to a broadcasting time line of the broadcast media stream in the broadcasting system (column 7 lines 57-65, column 13 line 62 to column 14 line 3);

the user terminal is configured to synchronize an internal time of the user terminal with the internal time of the broadcasting system (column 13 lines 38-45);

the radio system is configured to send the content item attached to the broadcasting time line of the broadcast media stream to the user terminal (column 7 lines 57-65, column 13 line 62 to column 14 line 3); and

the user terminal is further configured to present the received content item in the user terminal at a given moment in time that is determined based on the attachment of the content item to the broadcasting time line and on the synchronization of the internal time of the user terminal with the internal time of the broadcasting system (column 7 lines 57-65, column 13 line 62 to column 14 line 3).

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Regarding claim 21, Nakatsuyama anticipates a user terminal of a radio system, wherein the user terminal (40 of Figs. 1-2) is configured to:

synchronize the internal time of the user terminal with the internal time of a broadcasting system (column 7 lines 45-53);

receiving one or more content items through the radio system which content items are attached to a broadcast media stream of the broadcasting system (column 7 lines 57-65); and

present the received content items attached to the broadcast media stream at a given moment in time that is determined based on the synchronization of the internal time of the user terminal with the internal time of the broadcasting system (column 7 lines 57-65, column 8 lines 35-63).

Regarding claims 2, 12 and 22, Nakatsuyama anticipates the limitations of claims 1, 11 and 21.

Nakatsuyama also anticipates the limitation of further comprising sending synchronization data to the user terminal for synchronizing the internal time of the user terminal with the internal time of the broadcasting system and synchronizing the internal time of the user terminal based on the received synchronization data (Figs. 1 and 5, column 7 lines 45-53, column 13 lines 38-45).

Regarding claims 3 and 13, Nakatsuyama anticipates the limitations of claims 1 and 11.

Nakatsuyama also anticipates the limitation of further comprising synchronizing the internal time of the radio system with the internal time of the broadcast system (inherent in Fig. 5 and column 11 line 49 to column 12 line 50) and sending the synchronization data from the radio system to the user terminal (column 13 lines 38-45).

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Note that time synchronization data is sent via radio system to terminal and program data is broadcasted via broadcast system according to the same time data, furthermore both systems are within the same main system, internal time synchronization is thus inherited.

Regarding claims 4, 14 and 23, Nakatsuyama anticipates the limitations of claims 2, 12 and 22. Nakatsuyama also anticipates the limitation of further comprising sending synchronization data with the broadcast media stream broadcasted by the broadcasting system to the user terminal (column 13 lines 38-45).

Regarding claims 6, 16 and 24, Nakatsuyama anticipates the limitations of claims 1, 11 and 21. Nakatsuyama also anticipates the limitation of synchronization of the internal time of the user terminal with the internal time of the broadcasting system comprises executing a synchronization algorithm in the user terminal (Figs. 1 and 5, column 7 lines 45-53, column 13 lines 38-45).

Regarding claims 8 and 18, Nakatsuyama anticipates the limitations of claims 1 and 11. Nakatsuyama also anticipates the limitation of the content item comprises one or more of the following: a text, an audio, a video, an image, a multimedia presentation, and a series of these or any combination thereof (column 9 lines 48-67).

Regarding claims 9, 19 and 26, Nakatsuyama anticipates the limitations of claims 1, 11 and 21. Nakatsuyama also anticipates the limitation of the content item comprises an object identification of an object and the method further comprises sending a transaction signal with the object

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identification from the user terminal to the radio system and delivering the object of the object identification to the user terminal through the radio system (column 12 lines 18-50).

Regarding claims 10 and 20, Nakatsuyama anticipates the limitations of claims 1 and 11.

Nakatsuyama also anticipates the limitation of further comprising attaching the content item to the broadcast media stream by defining the content item's availability to the presentation prior, during and after the broadcast of the broadcast media stream (column 7 lines 57-65, column 9 lines 12-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Nakatsuyama (US Patent#6658231) in view of Gerrits et al. (US Patent#7031696).

Regarding claims 5 and 15, Nakatsuyama teaches the limitations of claims 4 and 14.

But, Nakatsuyama does not expressly disclose the limitation of further comprising using a Radio Data System (RDS) for sending the synchronization data from the broadcasting system.

Gerrits et al. teach the limitation of using a Radio Data System (RDS) for sending the synchronization data from the broadcasting system (column 2 line 48 to column 3 line 11).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate using a RDS for sending the synchronization data from the broadcasting system of Gerrits et al. into the method and media system of Nakatsuyama, in order to provide more accurate timekeeping signal with quality.

3. Claims 7, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuyama (US Patent#6658231) in view of Syrjarinne et al. (US Patent#6678510).

Regarding claims 7, 17 and 25, Nakatsuyama teaches the limitations of claims 6, 16 and 24.

But, Nakatsuyama does not expressly disclose the limitation of the synchronization algorithm comprise: sending signals from the user terminal to the radio system; calculating round trip delays of said signals; calculating the difference between the internal times of the user terminal and the radio system; and synchronizing the internal time of the user terminal based on the calculated difference between the internal times.

Syrjarinne et al. teach a synchronization algorithm comprise: sending signals from the user terminal to the radio system; calculating round trip delays of said signals (column 6 lines 45-61); calculating the difference between the internal times of the user terminal and the radio system; and synchronizing the internal time of the user terminal based on the calculated difference between the internal times (column 6 line 62 to column 7 line 13). Note that the principle of the synchronization algorithm is the same regardless what kind of radio frequency system it is used in.

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Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the synchronization algorithm of Syrjarinne et al. into the method and media system of Nakatsuyama, in order to provide accurate time synchronization.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhiyu Lu whose telephone number is (571) 272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zhiyu Lu
May 15, 2006



**QUOCHIE B. VUONG
PRIMARY EXAMINER**